## FIX IT UP!

Bruce Turner Energy Stardom, Part Two

Last time we got together, we talked about ways to save energy – and keep more of your money in your pocket – with Energy Star appliances, Low-E windows, skylights and insulation.

Another good place to save energy is at the light switch. I wrote last year about the virtues of flourescent lighting, and I'm going to stay on that soapbox. Americans are biased against flourescents – they're considered harsher and colder than incandescent lights – but the fact is that modern flourescent lighting is dramatically better than it was years ago. Flourescents today are attractive, warm, quiet and reliable – and they use a fraction of the electricity of incandescents. See for yourself – next time you burn out an incandescent bulb, replace it with a flourescent.

Do your kids tend to walk out of a room and leave the lights on? Admit it, you do too. That wastes energy. A good way to save that energy is to install vacancy sensor switches in rooms that tend to be abandoned with the lights on. When the vacancy sensor fails to detect movement in a predetermined period of time, it automatically turns the lights off.

Another way to make your lighting more energy-efficient is to separate different types of lighting with different switches. There are three basic kinds of lighting – ambient, task and mood lighting – and having all of them on one switch can be inefficient. You don't need your bright task lighting in the kitchen, for example, if all you're doing is going to the refrigerator for a beer during the game. So why turn on the same intense lights you use for cutting carrots? Connect your ambient background lighting to one switch, the task lighting to another and the soft mood lighting to a third, and flip on only what you need.

Heating your home can be just as big an energy-eater as lighting it, and that's an area you can address inexpensively as well. If you have an old house with the original baseboard heaters, replace 'em with Energy Star heaters. It doesn't cost much and the new models are dramatically more efficient. If your home is centrally heated, have a look at your furnace. Today's Energy Star furnaces are over 90 percent efficient, and most of them are direct-vented. Make sure all your forced-air ducts are sealed tightly at all connection points.

Once your house is heated efficiently, consider doing the same for your water. A couple of months ago, I wrote about the tankless water heating system, which is basically hot water on demand. The system replaces your existing water heater with a boiler or series of boilers, which heat the water at the moment you need it. That saves the energy required to keep a water heating operating 24/7 – and saves the water you waste down the drain waiting for your shower to heat up. With tankless heaters installed at or near the bath or kitchen, there's no waiting.

Finally, of course, you can generate your own electricity from old Mr. Sun. A solar energy system using rooftop panels converts the sun's rays into electricity that can be sold back to PG&E's distribution system. Solar panels are far less expensive than they used to be -\$10-20 thousand - and there are rebates and tax breaks available that can help you cover that cost in as little as five to seven years. And best of all, coastal folks, it doesn't matter whether the sun is out or not. The solar panels even collect energy through the fog. We'll talk more about that in a future column.

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